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AUTHOR Kerns, H. Dan; Johnson, Nial
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ABSTRACT

Recognizing the decline in student visual communication skills, faculty from different disciplines collaborated in the design of a visual literacy course. The visual literacy skills developed in the course are that students learn in the following ways: (1) through faculty presentation and demonstration of the various tools available; (2) with hands-on practice and discovery; (3) in a tutorial manner; and (4) through observation learning--faculty members utilizing visual mediums with well produced visuals. A key element to student success in the course was the faculty's knowledge and emphasis of the importance of visual literacy. The progression of the course, which began in 1967, follows four distinct stages of development. In stage one, the process of creating slides is cumbersome, requiring several steps and student dependence on professional staff. Stage two is marked by the introduction of personal computers, and a decrease in dependency on professional staff. During stage three, students begin to grasp the importance of effective visuals, as they learn the language of visual literacy, practice skills first hand, and achieve near to total empowerment. Stage four is the current stage, similar to stage three, with the added component of multimedia. The outcome of the visual literacy class is the contagious interest that it has resulted in, with fellow students, faculty, and clients impressed with and wanting to know more about the use of technology in presentations. (Contains 9 references.) (MAS)

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Ingredients to Successful Student Presentations: It's More Than Just a Sum of Raw Materials

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H. Dan Kerns
Nial Johnson

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Ingredients to Successful Student Presentations: It's more than just a sum of raw materials

Many students graduating from our colleges and universities do not have an appreciation for the importance of visuals as an effective communication tool. They have grown up in a world which has surrounded and bombarded them in a visual aura, yet they are jaded and bored by visuals.

Recognizing the decline of visual communication skills of students, several faculty members from Communication, English and Industrial Engineering got together with the Coordinator of Audio-Visual Services and discussed a concept of a team approach to teaching visual literacy to college seniors in a capstone course in Industrial Engineering. This course places students in the community with real clients with real I.E. problems. The semester long project is treated as a consulting firm. In addition to solving the client's problem, students are required to communicate their findings in a series of written progress reports and a final report; an on campus oral presentation run through and a presentation to the client. Visual literacy is stressed in the creation of presentational visuals as well as the written reports.

Over the years of refining this process (the course has been taught since 1967) a guiding philosophy has been developed and tested. This philosophy supports much of the research in our field on how learning takes place. The areas we will discuss in this paper and which make up the approach of teaching visual literacy skills are as follows:

- Students learn through faculty giving a presentation and demon stration of the various tools available;
- Students learn with hands on practice and discovery;
- Students learn in a tutorial manner and;
- Students learn through observational learning: faculty members utilizing visual mediums with well produced visuals.

These methods of learning are nothing new or earth shattering. Elementary and secondary teachers have been successfully using these techniques for years. So what can we offer to the field of visual literacy except for validation of the successfulness of this procedure? The answer is the approach and empowerment. Students will learn the importance of visual literacy only if the faculty know the importance of visual literacy. Students

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will visualize, create and communicate concepts in well produced oral presentations and written documents if they are taught the language necessary to do so. Further, students will develop an understanding, appreciation and knowledge of the elements which go into creating good, effective visuals. All this is true if the faculty know the importance, stress the importance and practice these same techniques. This is the key element. Much of the learning is observational. Faculty members need to have a teaching style which supports what they teach. If they want their students to be good communicators visually and orally, they need to be good communicators, regardless of the subject matter being taught. All teachers and faculty members need to be trained in the area of visual literacy and design, regardless of the discipline. It is not enough to recognize a "good presentation" from a "bad presentation." Faculty members need to know "the language" of visual literacy just as much as they need to know the English language.

The goal of this paper is to share the process that has been successful in teaching students and a limited number of faculty members to become visually literate. It's not enough to expose students to all the ingredients and tools necessary to create an effective presentation and send them off with the instructions of "Do good things, create good visuals, make a good presentation." Effective presentations are indeed more than just the sum of all the ingredients. As we all know, it takes more than a recipe to make a good cook.

Overview of the Process

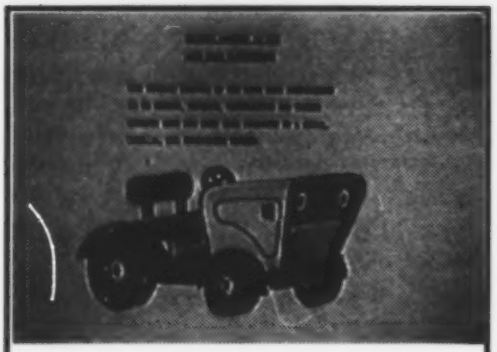
Senior I.E. students have as resources the faculty members from Communication, English and Audio-Visual who teach and assist the students in each of their content areas. Additionally students have available to them color Macintosh computers with the necessary software to create visuals and the presentation platforms such as color LCD panels and portable video projectors.

Historical Progression

Since the inception of course in 1967, there has been a steady progression and a change in the level of sophistication of the visuals. Additionally, there has been a shift in the manner in which the visuals are produced and who creates the visuals. One constant however, is a strong emphasis on the visual aspect of the presentations. The earlier slides were somewhat rudimentary in comparison to today's standards, but they were effective. There are four stages to date in the progression. The stages are defined by advances in technology. The technology has been the empowerment tool, allowing the students to become more of the creative component in the cycle. The concept of empowerment which includes the freedom to make decisions, the knowledge to make informed decisions and the necessary tools to create and implement them is an important step in the progression and will be discussed in Stage Three.

Stage One

Very early in Stage One visuals were freehand creations, type was set by a highliner and photographs. Some limited iconography was used, but the visuals largely consisted of layouts, flow charts and diagrams. Gradually the concept of visualization progressed to the point of using slides. With the introduction of computers, the highliner

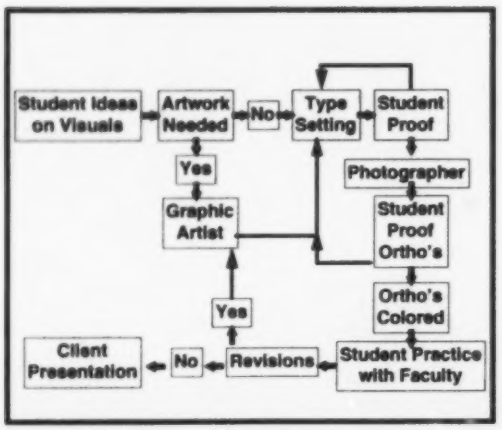


Slide 1
This slide from a presentation in 1968 and is representational of early Stage One. Notice the font size is much too small for ease of readability. The resolution of the slide was hampered by the capturing technique used to convert the slide to a computer image.

was replaced with a typesetter, but the process of creating slides was still somewhat cumbersome in that several steps were necessary in the production chain (see figure 1 below).

The students were highly dependent on professional staff in Audio-Visual to create the visuals because of the level of technology necessary to create slides. The professional staff of Audio-Visual would meet with the students and suggested visuals for their presentations. The text for each slide was created by a typesetter and the output was on photo typesetting paper. The artwork was then taken to a photographer who would shoot each page as an ortho. Once developed, the text on the slides were hand colored to delineate and highlight the header from subordinate points. If a progressive series of slides were used, each slide required additional treatment by the staff. Additionally, each new slide was hand colored so the new point in the progressive build was a different color in order to stand out.

Figure 1: Stage 1



Some limited use of iconography and line art occurred in Stage One. The artwork was hand placed on the original paste-up. The decision to use artwork had to have been made prior to going to the typesetter in that the type would be set to accommodate the placement of artwork. Originally produced artwork required longer lead time to generate than finding something in a clip art book. Company and university logos were incorporated in the slides.

The production process was lengthy and cumbersome which left little opportunity for students to make changes in their presentation after the first set of slides were created. Some changes were made in individual slides such as misspellings or coloring problems. The lead time was also lengthy. Students had to know what they wanted to include on their slides about two weeks prior to needing the visuals for the client presentation. The lead time created a problem in that much of the data analysis and recommended solutions were still in the process of being generated at the time the visuals were due to the typesetter. The material for the slides would go to the typesetter in increments, with the final recommendations being rushed through the process. Little time was available for students to

practice with their visuals prior to the client presentation. In the coaching sessions with the faculty we could comment on the slides, offer feedback, but little could be done in the way of changing the organizational aspects of the presentation after the slides were generated.

The process for Stage One was lengthy. Stress levels were high for the students and the professional staff as they toiled under the pressure of the deadline and the need for a quick turn time. Further, the slides were expensive to produce. Even if there was time to redo a set of slides, the cost was prohibitive.

Stage Two

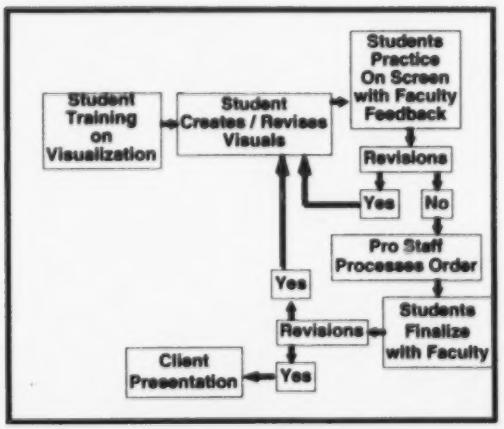
Stage Two can be marked by the introduction of personal computers such as the Macintosh. Students begin to take on more and more of the creative process with less dependency on professional staff to create visuals (see figure two below).

A new component is added however in that extensive training sessions are scheduled to teach visual communication skills. Empowermentis beginning to occur as students gain knowledge and independence. No longer did someone else visualize the for the students, the students did so themselves. Students were practicing what they had learned. Discovery learning also was taking place as students had their hands-on use of the equipment. They could see what the visuals would look like if they changed font styles, moved icons here or there and so forth.

Great strides have been made in the visualization of the slides. Iconography and placement of visuals are easily achieved in Stage Two. Flatbed scanners, clip art files and drawing applications provide an array of visual resources. A move away from highly text centered slides to visual images has occurred.

The imaging of the slides to film required about a one week lead time. This is much improved over the necessary two week lead time of Stage One. Additionally, the students can practice their presentations with the faculty using the monitor of the computer. This provided the students

Figure 2: Stage 2



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Slide 2
Created in the mid 80's, this slide is reprepresentational of the use of iconography to communicate a message. Even without the benefit of the verbal explanation, the viewer can derive the entended meaning.

with the added advantage of: 1. practicing with the visuals, 2. seeing what worked, 3. obtaining feedback from faculty and 4. revising visuals prior to imaging. Additionally, the concepts of visual literacy are reinforced in the practice sessions. Students can receive feedback and changes can be instantaneous.

Characteristics of Stage Two included many changes. The presentations were more professional in nature. Students were capable of producing nicely composed visuals. A variety of backgrounds were available in software packages used.

Stage Three

During Stage Three, students really began to grasp the importance of effective visuals, in which they learn the language of visual literacy and have an opportunity to practice the skills first hand. Near to total empowerment of the students occurred during this stage. Students were no longer dependent on staff to generate the visuals for their presentation (see figure 3 & 4 below).

Figure 3: Stage 3a

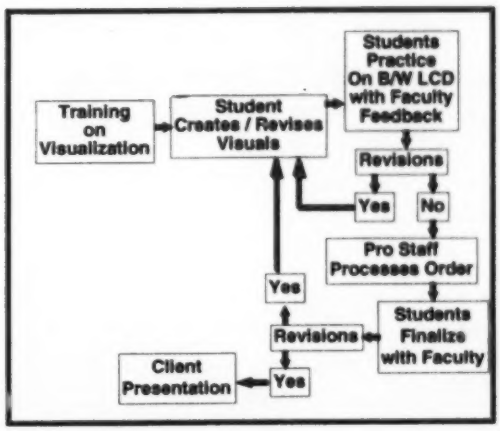
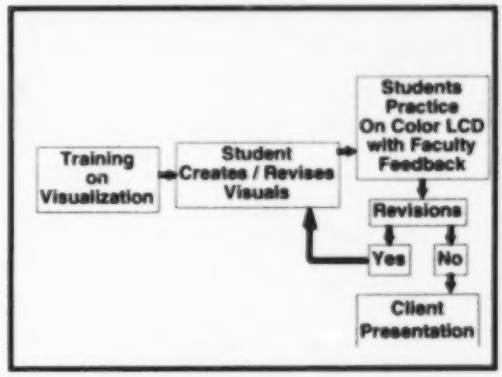
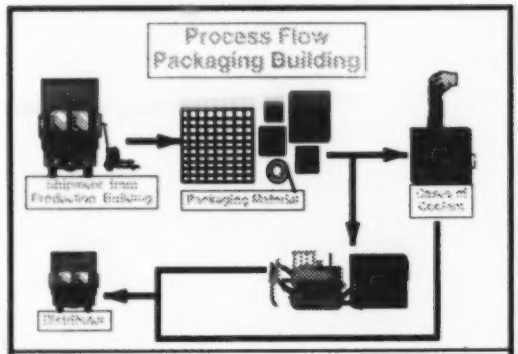


Figure 4: Stage 3b



The students could use and practice what they had learned about visuals (composition, placement, balance, color, text selection, etc.). Students now had the advantage of combining the knowledge with the available resources to create the visuals necessary for their presentation. This offered additional advantages, because the students were solidifying their abilities which would aid them in their professional development and lifelong use of visualization skills.



Slide 3

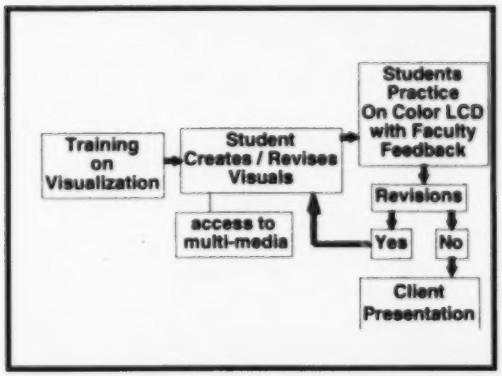
The empowerment process has lead to effective and creative visuals being produced by students. This visual was created in the 1994. Note the change in terminology from the use of *slide* to the use of *visual*. Visuals from Stages 3a, 3b and 4 can be imaged as a slide or projected straight from the computer through various means.

The main difference in 3A and 3B is the color data plate allows the students to bypass the imaging step, thus saving time and money. Technology affords students the opportunity to be more creative as they can change and refine their presentation up to the time of the presentation to the client if they use the data projection system. They can experiment with visuals. Less lead time is necessary for the production process, thus more time can be used on the actual production of the slides.

Stage Four

Stage four is the current stage and has much of the same characteristics of Stage Three with the added component of multi-media (see figure 5). Multi-media is different than the old use of the term, which would be more appropriate to term multiple media. For the purposes of this paper, multi-media is the intertwining of traditional formats (slides, photographs, graphics, motion sequence which includes film, video and animation, electronic still images, photo CD, computer network images and audio) into a computer controlled environment. Students now have a wide variety of inputs at their disposal for the generation of a presentation.

Figure 5: Stage 4



Empowerment becomes a question if students do not have access to the resources through lack of physical access to the necessary hardware as well as lack of knowledge of operation and/or use. If students are not equipped in either fashion, they become dependent again on professional staff and thus a setback occurs.

Empowerment

In order for total empowerment to occur, students need to have the equipment or tools available, the knowledge in how to use the tools as well as the knowledge to construct and create visuals, the time to be creative, to discover and practice what they learned in a hands-on environment, the free access to the equipment and the ability to make decisions based on facts.

There are some obvious impediments to empowerment. They can be broken down into two categories: practical limitations and system imposed limitations. The practical limitations are those things which cannot be easily changed. The lack of equipment to go around to all students, so each student's time on the equipment has to be limited, is a good example of a practical limitation. A second practical limitation would be financial or the inability to afford to keep up with technology.

System impediments are those items which we do have control over. Most center around a mind set. Many of the mind sets revolve around the stereotypical image of a librarian; that is, the only happy librarian is one who's books are all accounted for and are neatly aligned on the shelves, in perfect order and out of the hands of patrons who will only smudge the pages and dog ear the corners. This mentality is

alive and well in the faculty, media centers and labs. There seems to be this need to have tight control over their equipment. Such excuses like the following: "We can't let them use it, they might break it or worse yet, they might wear it out!" "Well it would only pose a security risk!" Others use equipment as brokerage chips. The "I have something you could need, but what's in it for me?" mentality. Most often, the equipment is saved for important people: the presidents, deans, faculty chairs, people in power who can have an effective change over the media person, the lab director, etc. More often than not, when the equipment is antiquated, it is still in mint shape, waiting for the president, the dean, the ...

One of the most important items of empowerment is free access to the equipment. Students need to have access to the equipment at all hours, even weekends and for long periods of time. Many universities and schools have established strict lab hours and rules regarding use of the equipment. Creative energy flows are hard to start and hard to stop with the lab hour clock. Once a creative energy flow is interrupted (by closing time or whatever), it is nearly impossible, if not impossible, to regain the momentum which was happening at the time of the interruption. The edge is lost. The opportunity is lost. Time is lost. Labs which house the equipment necessary to use in the creative production process need to be set up so that they are flexible to accommodate empowerment.

The final mind set limitation is "It's only a student project..." Translated this means, it's only a student project and is not really worth the time, the expenditure of funds, the expenditure of staff time, the limiting of equipment availability from VIP's, etc. This mind set starts with the faculty who are not particularly creative or forward thinking. Sure it's a only student project, but the goal of which is to teach students how to be effective communicators both orally and visually.

Other impediments to empowerment are lack of knowledge in use of the equipment as well as the knowledge of how to apply what they know about using the equipment. Sufficient training on the language and skills of visual literacy in necessary. Otherwise all the equipment and training on the equipment won't produce good visuals. This would be analogous to giving someone a hammer, some nails, lumber and a saw, showing them how to use each, and then expect them to build a house. There is more to it than that. The same is true of visualization.

Outcome

The outcome of the process has had some positive impacts in other areas at the university as well as off campus. Effective presentations are contagious. Students see friends and roommates create presentations which far exceed what they have seen before or done themselves. They are excited and curious and seek out on their own the knowledge they witnessed. They in turn use the newly found tools in their presentations after a crash course by professional staff and the discovery process. Those faculty and students become curious and the process continues. This is great, but inefficient. It is inefficient because the incidental witnesses haven't had the extensive training on proper design and use of the mediums available, but great none the less because they are availing themselves to the technology.

The same process has happened when students go to regional

conferences and competitions. Students and faculty from other universities see the equipment and the outcome and often follow up the conference with a telephone call inquiry.

When students present to clients, often times the reaction of the client is amazement. They admit they are still "flipping transparencies." On completion of the presentation by the student project team to the client, the president of the firm inquired of his staff if they had the technology to do what the students did. This has happened on three occasions in the past two years at major firms.

Faculty have witnessed other faculty member's presentations and themselves have inquired on how to go about achieving the same results for their own presentations as well as presentations required of the students. Some faculty become innovative and learn the necessary steps involved and serve as a binder to the recipe of ingredients, and are successful. Others, however, just submit a recipe card to students: "Here are the tools, the software, go create good presentations..." The end result, unfortunately isn't the same. The faculty need to empower themselves, enlighten themselves first.

Some specific outcomes of the students involved in the process are numerous. Students have a marked increase in the level of interest in creating and using visuals as well as excitement to use what they learned. They begin to take ownership of the visuals they create. They become competitive with other students in other projects over whose visuals are the best. They make time to have create visuals, often forgoing sleep, parties and weekends out. The students do not have visuals just because they are required to, they now have visuals that communicate their ideas better. This level of commitment didn't occur until students were empowered. They didn't have a tight connectiveness to the information in the visuals as they do in Stage Three and Stage Four. This is theirs. They are proud of what they have achieved. And rightly so.

Conclusion

Yes, students and much of society is jaded and bored by visuals because much of the visuals that they are exposed to aren't very good. When and only when more of society is knowledgeable and versatile in the language of visual literacy will the quality of visual information improve. And this will only happen if we in the field of visual literacy initiate change in the teaching institutions of this nation to require all teachers, all professors, all faculty members to have as a core knowledge the language of visual literacy and the ability to use it effectively. Additionally, all students should be required to take a visual literacy/media utilization course as a general education requirement. If students and faculty know the language of visual communication, this knowledge would be transferable regardless of the technology the student/faculty encounters in the future.

The process described above for the students should be applied to training of teachers and faculty. If we as a society demand and mandate our faculty to learn, create, and use visuals in their lesson plans, then the teaching institutions need to provide for them the necessary tools, the training and professionals to assist them and the time to learn through practice, refinement and discovery.

A good presentation is more than just the sum of the raw materials, it is the knowledge of *why* it is a good

presentation, *what* made it so and *how* to go about doing it. And when students reach this point, they have learned the importance of visual literacy as well as the language and application, which was our goal, our guiding philosophy.

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